What are the rules of a game? Ask almost anyone and they'll probably mention at least one of the following:

1. They're what's printed on the rule-sheet of a published game - or, in the case of a traditional game, in a book said to be written by some character called Hoyle. Either way, they're essentially some sort of written description of how the game goes.
2. They're the "official" rules which you must follow if you don't want to be thrown out of the club. They are essentially prescriptive and proscriptive (they tell you what you must and must not do).
3. They're instructions designed to teach the uninitiated how to play the game.

Already the concept of rules starts to cover quite a lot of ground. They may be descriptive, prescriptive, proscriptive, or instructive. But they can be more than that. For instance:

4. There are rules of appropriate behaviour, like not starting to pick your cards up before they've all been dealt. These are sometimes called the Proprieties, or Etiquette.
5. There are rules of sanction and correction, which only operate when players contravene the basic rules of play. These are often known as the Laws.
6. Then there are the rules (so called) of strategy. These, indeed, are the only rules covered by Hoyle himself in his earliest book, *A Treatise on the Game of Whist* (1742), which offers "some Rules whereby a Beginner may, with due attention to them, attain to the playing it well...".
7. Consider also games that require or at least invite you to play a part. In Chess, you are a commander in charge of an army; in the Chinese Game of Promotions, you are a prospective Mandarin; in Monopoly, you are a property developer and business tycoon. If these are rules at all, they may be designated dramatic or liturgical. You may decline to call them rules, yet they are a valid part of the
meaningful experience of playing the game and can't be entirely omitted from any comprehensive account of it.

So let's start again and try imposing some structure on formulating an answer to the question "What are the rules of a game?"

**Explicit rules**

It is widely assumed that all games have official rules that are recorded in writing. But it is mistaken. For one thing, most games are not book games but folk games, being transmitted by word of mouth, example, and practice. For another, even where written rules do exist, probably no folk games and certainly very few book games can lay claim to a widely recognised governing body responsible for authorising them.

Nevertheless, all games must have rules of some sort, otherwise they cease to be formal entities and become merely undefined periods of unstructured play. The most basic rules of a game are not a form of words but a set of operational procedures you apply to the gaming equipment in order to play the game. Following Salen and Zimmerman, I refer to these as the operational rules. Operational rules are what you apply to the hardware of gaming equipment to produce an instance of play. I will put this into diagrammatic form as the basis of a model of a game that I intend to build up during the course of this paper:

Operational rules (software) > Equipment (hardware) > Play (application)

Operational rules are explicit, in the sense that they can be verbalised, even if not necessarily recorded in writing. The realisation or embodiment of the rules in a physical set of gaming equipment may be likened to the hardware of the game, or, by another analogy, to its skeleton. When we unearth the remains of a game in an ancient tomb, we find only the skeleton: we cannot know (or be sure we know) how the game was actually played. The application of the rules to the equipment is what produces the actual play of the game. A game must be played to be fulfilled, or to have meaning. Every time you play a game you are breathing life into its clay in accordance with its operational rules, and it becomes what Salen and Zimmerman describe as a "meaningful experience of
The most basic level of experience suggests that the rules of a game are something inherent in the game itself - or, more accurately (since a game is essentially a mode of behaviour), an abstraction existing in the minds of all its players. They are expressed in words every time someone describes a game or explains how to play it. Not everyone will have exactly the same understanding or grasp of the game, so they're unlikely to transmit their knowledge in exactly the same form of words. These rules are therefore not a known quantity but an average of all the understandings of all the players. As such, they may contain inconsistencies. The totality of rules of all but the simplest games are not exactly a cloud of unknowing, but could be described as a cloud of fuzzy knowing. In telling you how the game is played, they serve to establish its formal identity. Huizinga, in *Homo Ludens*, says "Every game has its rules"; but I would go further and say "Every game is its rules, for they are what define it".

For example, Noughts & Crosses (Tic-Tac-Toe) is defined in the Oxford English Dictionary as:

```
a children's game with a figure containing nine spaces [in three rows of three], which are filled up by two players alternately with ciphers and crosses, the object of each being to place three of one kind in a line.
```

This definition clearly expresses the rules of Noughts and Crosses, but it is equally clearly a description rather than a prescription. It says nothing about authority or obligations but merely asserts the identity of the game. It relates the name of the game to a set of procedures, and a set of procedures to the name of the game. It doesn't say you have to play it this way. All it says, in effect, is that, if you play a game that follows this set of procedures, then the game you are playing is Noughts & Crosses; otherwise it isn't.

Cosimo Cardellicchio has likened the abstract body of operational rules to a virus inhabiting the mental software of the gaming community (by which term I mean all the players of a given game). He also pointed out that, like any other virus, it is prone to mutation, thus causing variations and evolution of one game to another. Variable comprehension and faulty transmission are two ways in which rules change and so cause games to evolve.
Implicit rules

The operational rules of a game are known consciously, and are made explicit whenever they are addressed and verbalised. But there are also at least two types of rules that are unconsciously known or implicit. I'll call these respectively (a) foundational rules and (b) behavioural rules, and add them to the model as follows:

Foundational rules > operational rules < behavioural rules
  
  equipment
  
  play

Foundational rules

As Salen and Zimmerman observe, the operational rules of Snakes & Ladders include rolling dice, moving counters towards a goal 100 squares distant, and taking short cuts backwards or forwards when landing on a snake or a ladder respectively. But you could play essentially the same game by any means of randomising a number from one to six, adding it mentally to a running total, and automatically reducing or increasing your total when it reaches a certain predetermined level, the winner being the first person to total 100 exactly. They describe these as the deep, underlying mathematical rules shorn of any reference to a board, dice, counters, or snakes, ladders, and everything else that turns the game into a meaningful experience of play. Salen and Zimmerman call these the constitutive rules; but no such word appears in the Oxford English Dictionary, and I think a more sensible term is foundational rules.

Behavioural rules

Not all the rules of a game are expressible in words. Salen and Zimmerman refer to certain rules of behaviour as the "Unwritten Rules", this being the title of a substantial essay by Steven Sniderman. Sniderman also uses Noughts and Crosses to introduce the concept of unwritten rules of behaviour:
Is there a time limit between moves? Normally, we both "understand" that there is, and we both "know" that our moves should be made within a "reasonable" time, say 20 seconds. If one of us takes longer, the other starts to fidget or act bored, may even make not-so-subtle comments, and eventually threaten to quit. Without having stated it, we have accepted a tacit time limit [...] Is it a rule, or isn't it? Suppose it is my turn and, no matter what I do, you will win on your next move. Couldn't I prevent that from happening, within the rules stated, by simply refusing to play? Nothing in the rules forces me to move within a particular amount of time, so I simply do not make my next move. Haven't I followed the rules and avoided losing? And yet, if you've ever played a game, you know that this strategy is almost never employed and would be completely unacceptable. Anybody who seriously resorted to such a tactic would be [ostracized] in the future. This behavior seems to violate some fundamental but rarely stated principle of the game without any of us ever having to discuss it.

Sniderman also discusses implicit rules about whether verbal banter is acceptable, and, ranging even more widely, observes:

Since there are various "levels" of rules, "higher" rules (such as a real-world crisis) might have to take precedence over "lower" rules (such as time constraints), there must be a set of meta-rules for determining when this is appropriate. As with the other meta-rules we've looked at, there is no "final" set for ending disputes, so the question, "When is it appropriate to suspend certain rules?" cannot be given a full answer.

Not all behavioural rules are implicit, however. The more widely and seriously a game is played, the more explicit do rules of behaviour become. In the International Laws of Contract Bridge, for example, they are referred to, reasonably enough, as the Proprieties and are made quite explicit.

Now let's consider the written rules, by which I mean any set of rules that has been formulated and recorded in writing. I asserted above that most of the world's games, especially taking variations into account, are not recorded in writing. Is this because the vast majority of the world's population is illiterate? No. When I looked into this question I was surprised to learn that nearly 80 per cent of the global population aged 15 and over is officially literate, and that the figure is expected to rise to 85 per cent by 2015. So am I wrong in my assertion about folk games and book games, or is something else going on here? I think the latter.

It must be true that some countries are more or less literate than others. But
even a largely literate population, such as that of Britain or the United States, may include a large number broadly describable as non-literate for one reason or another. For example:

- A significant proportion will be children, who may be described as pre-literate. They play games, of course, but children's games are essentially folk games rather than book games.
- Some people will be, to all intents and purposes, functionally illiterate. But it is patently obvious that being illiterate is no bar to learning and playing games.
- Probably a larger number are nowadays described as aliterate - that is, they can read and write, but avoid doing so whenever possible. So they too will pick their games up in the traditional non-literate way.
- If we describe children as pre-literate, I suppose we can also invent a category for the post-literate - that is, people whose literacy has become compromised by age or failing eyesight.

I don't know what proportion of the remaining truly literate society remains after deducting the various types of non-literate. But even if it is over 50 per cent there still remains the cultural fact that following the written rules of a game demands a peculiar degree of concentration and interest that many people would prefer to avoid if they can. The plain fact of the matter is that learning games is, by long tradition, of itself not a literate activity. After all, games-playing is a form of cultural behaviour, and people learn most of their behaviour from other people, not from books. Players are only likely to call on books and printed rule-sheets when they are passionately concerned with what they like to call the "official" rules - that is, those authorised as prescriptive and proscriptive. One consequence of this tradition is the fact that book games tend to remain relatively static over long periods of time, and are less likely to vary and evolve than most folk games.

An inevitable consequence of verbal transmission is the growth of variation in the operational rules of play. Each ad hoc exposition of the rules is unique to the person explaining the game. Variation can occur because the learner may not fully understand the rules, perhaps because certain situations that occur but rarely are not mentioned by the teacher, and the newer player will have to find some way of dealing with them when they do occur by inventing rules to cover them. In course of time, rules transmitted verbally undergo changes like those encouraged in the game of Chinese Whispers. Book rules, on the other hand, tend to retain an element of fixity. Indeed, a notorious feature of the transmission of book rules is that they often remain transmitted in a form that no longer corresponds to the way a game is actually played in real life. A classic
example is that of Brag, the English equivalent of Poker. The form of the game described in Hoyles up to the mid 1970s was one that seems to have died out by the 1790s.

A template for written rules

Who are the rule-writers, and how should they do it? Obvious candidates include games inventors, the authors of Hoyle-type gaming manuals and anthologies, and anthropologists who are sufficiently interested in the subject to describe hitherto unknown folk games to the wider world.

As to the order of descriptive events, I favour the following:

1. The name of the game. This is more than interesting: you could say it is vital. The name of a game is the portal through which you pass from the real world into that special world in which games are played. The subject of how games get their names and what they mean would make an interesting paper for a future colloquium.
2. Its classification. This relates it to other games and should include a brief account of its distinctive points.
3. Authority. State the provenance of the game, sources of authority, and authority of the person drafting the description.
4. Number of players, and how disposed. (For example, Solo or partnership?)
5. Social status. (Played by men, or women, or mixed? Regarded as childish, intellectual, disreputable?)
6. The gaming equipment and a brief description of how it is to be manipulated.
7. The aim of the game. (I never cease to be amazed at how many game books say nothing about how you win the game until they have gone into excruciating detail of how you play it. At toy fairs, when I ask the inventor or publisher of a new game what it’s all about, I usually have to interrupt them within the first half-minute to say "Yes, that’s all very well, but what are you aiming to do? How do you decide who has won?")
8. Detailed rules of play in the normal course of events, with specifications of what you may and may not do.
9. Special rules governing exceptional cases and occurrences.
12. Pay-off. This may be money, title, prestige, or something else that you carry away with you into the real world. Just as the name of the game is the portal from which you pass out of the real world and into the play world, so the pay-off is the portal through which you pass back out of the play world and into the real world.

These are the main elements of what I consider the basic essentials of a game description, other than rules of behaviour, strategic guidelines, and any so-
called rules relating to a game's thematic, representational or allegorical aspects. (Note 5.)

The "official" rules

When you sit down to play a game, you all normally expect to be playing the same game - in other words, following the same set of operational rules. Why? Because a fundamental assumption of play is that everyone should be playing on a basis of absolute equality - as they metaphorically say, on a level playing-field. There are apparent exceptions to this, of course. For example, some games are asymmetrical, like Fox & Geese or Entropy, where equality is secured by alternating positions in a series of games. Some games, such as Chess and Go, offset inequalities by handicapping the stronger player. Either way, the object is the same: it is to provide a basic element of fairness. But again - why should a desire for equality and fairness be regarded as fundamental to the play of games?

This brings us on to perhaps the most fascinating and paradoxical characteristic of games - namely, that they are at the same time both competitive and cooperative. They are competitive in that both players want to win and will do everything in their power to do so. In fact, anyone who looks to be uninterested in winning is likely to be considered something of a spoilsport. At the same time, however, they are cooperative, in that both players will be operating within an agreed and equal set of constraints on their freedom to act.

This paradoxical behaviour appears to be a peculiarly human characteristic, as suggested by the following paragraph from Sniderman's essay The Unwritten Rules:

[We read] about a group of scientists who attempted to teach dolphins to play water polo. Although the dolphins were able to learn how to put the ball in the net (and seemed to derive pleasure from doing so), when the trainers tried to get them to stop the other team from "scoring," the dolphins launched an all-out war on the other team's players, using methods that no person steeped in the concepts of sportspeopleship would ever use. After this experience, the trainers gave up their effort, apparently concluding that their task was hopeless, that dolphins couldn't be taught to play the sport. My guess is that they assumed that all the dolphins needed to be taught were the recorded rules of water polo and the creatures would be able to play the game like adult human beings. These scientists evidently did not realize how much of our knowledge of proper game behavior precedes the learning of the statable
The problem of authority arises whenever there is a disparity between the sets of operational rules encoded in competing players' minds, thus producing situations in which they disagree on the rules. If they're unable or unwilling to resolve the dispute themselves, they will have to consult an external authority. This raises the question as to what constitutes a valid external authority. I will approach this by reference to what I call levels of association.

Levels of association and authority

The smaller the degree of association among the players, the narrower the scope of authority needs to be. For example, if you're playing a card solitaire, you constitute the smallest possible degree of association of players - that is, none at all - so if you encounter a situation where you're not sure what the rule is, you don't have to consult an authority: you can simply invent a rule to cover it. This probably explains why there are so many different games of Patience, each with so many different variations.

The next level is (what I call) the ad-hoc association of two or more players playing the same game at the same table at the same time. Theoretically, they can resolve a dispute by acting corporately like a single player and agreeing on a rule to cover it. Or they can agree to acknowledge one of themselves as an authority and abide by that player's decision. This may sound a bit far-fetched, but listen to this amazing assertion from Aquarius, a 19th-century writer on card games:

[As to the] Spaniards of Europe and America [...] Their way of referring to the dealer to settle every doubtful point or dispute is very marked. A book is never mentioned. The decision of the dealer, right or wrong, settles everything or anything, without a murmur, during outplay. Thus little hitches are readily disposed of, and any game can continue. A dealer can ask advice or consult with others, but his decision is his own, and must be immediate. Players come in and leave a game with a substitute very suddenly, and agree to anything done for them. The coolness, courtesy, and skill of the Spaniard at card playing renders him in such things superior to card players of other nations.

I can quote another example of this from my own domestic circle of players. In word games, which we play a lot, one of the commonest queries encountered is whether or not a claimed word is valid. For reasons that I won't go into, no
dictionary is entirely adequate for this purpose. The house rule followed by my group is that a given word is acceptable if at least one opponent accepts it. This may not work for every group of players, but it does with mine, if only because I insist on it!

A group of people who regularly play together can build up a quite a set of "house rules" by following this sort of procedure. Alternatively, of course, they can go to a higher level of authority, such as a book by an acknowledged expert or Hoyle-figure, or the printed rules of a national or international governing body whose rules are widely accepted as authoritative.

At the next higher level comes (what might be called) the group association, which is a group of people who regularly play together, usually at more than one table at a time, and who eventually all get to know one another, such as a local club. Here it is not practicable for each table to make up its own rules, so it is more desirable for the club itself either to devise its own house rules, or to declare itself subject to those of a national or international corporate authority.

The highest possible level is the total association of the whole gaming community - that is, all the players of a given game. Games and tournaments take place beyond the boundaries of a single club, and players will regularly encounter opponents they have never met before. This level of association requires the highest level of authority - such as Japanese Go Association, or the German Skat Federation, or the Fédération Internationale des Echecs - which may be exercised through the recognition of qualified referees, umpires and arbiters.

Despite all these external authorities, it is important to remember that they are authoritative only to the extent that the players agree to observe them. No book should be held to bear an intrinsic authority beyond that of the author's own competence and experience, nor should the rules drawn up by any official body be regarded as the official rules of the game in question, but only as the official rules of the body concerned. For example, the rule about having to play a certain number of moves within a given period of time is not an intrinsic rule of Chess. And such rules are only authoritative to the extent that players agree to abide by them: they can only be invested with an authority which, by their very submission to it, actually derives from that of the players themselves. By making reference to an external authority they are, in effect, harmoniously and
cooperatively legitimising those rules as their own. As James Carse puts it:

> The agreement of the players to the applicable rules constitutes the ultimate validation of those rules. [...] There are no rules that require us to obey rules. If there were, there would have to be a rule for those rules, and so on.

Given that players at the lowest levels of association can assert their own authority and regulate themselves, it is remarkable how often people contact writers of games book, such as me, with a specific query about procedure and ask how it is covered by the official rules. Often enough I reply that there are no official rules for the game in question but that I can either make the following recommendation from personal experience or refer them to someone else whom I think better qualified to pass an opinion. Why, in short, do regular players prefer to seek an external authority?

The obvious answer is to settle queries and irregularities without wasting time; but that is not all. As Steven Sniderman writes:

> A game is supposed to be for fun, and, generally speaking, playing the game itself is more fun than playing the meta-game of arguing. [It] is supposed to be for camaraderie, and arguing about the rules leads to antagonism rather than a spirit of friendly competition. Doing things as others have done them in the past allows us to feel connected to our ancestors, our culture, and our traditions; [and] following the rules that others follow allows us to compare ourselves to a wide spectrum of players, not just our immediate opponent(s). Individual players vary in their degree of authoritarianism. There will always be conservatives who look up to a higher authority and are resistant to change, and radicals who prefer to adopt a creative and variable approach to the establishment of norms.

This brings us to the subject of...

**Authority and attitude**

Salen and Zimmerman categorise players according to their "lusory attitude" - that is, their attitude to the rules and practice of play - and present this in tabular form, which I here take the liberty of abbreviating and slightly rewording:

<table>
<thead>
<tr>
<th>Type of player</th>
<th>Lusory attitude</th>
<th>Relationship to rules</th>
<th>Interest in winning</th>
</tr>
</thead>
</table>

http://www.davpar.eu/gamester/rulesOK.html
<table>
<thead>
<tr>
<th>Standard</th>
<th>normal</th>
<th>normal</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dedicated</td>
<td>over-zealous</td>
<td>intense</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unsportsmanlike</td>
<td>sometimes over-zealous, sometimes feigned</td>
<td>intense</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cheat</td>
<td>feigned</td>
<td>intense</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spoilsport</td>
<td>absent</td>
<td>absent</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Enlightening as this is, I can't help thinking it to be significantly incomplete, for it omits the very category to which the authors themselves (presumably), and I (certainly), belong! To it must surely be added that of the games technician - that is, one who is mainly interested in the technical workings of a game, such as an inventor, critic, or experimental player, and who can often be too objective to feel more than an academic interest in winning. Let's try it out:

<table>
<thead>
<tr>
<th>Technical</th>
<th>inquisitive, exploratory, creative, experimental</th>
<th>low</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This addition brings me to the final part of the model...

I said earlier that a major cause of change is variable comprehension and faulty transmission, and I think there is an interesting paper to be written on the subject of how games change when they pass from country to country or culture to culture. These might be described as accidental causes. But game rules are just as often modified deliberately. Those I describe as technical players - the inventors and critics - are the most obvious examples of change through critical encounter, or feedback from the play (application) or the board (realisation) to the rules (regulation). Inventing and developing games necessarily involves feedback: it is the *modus operandi* of the job.
Strong players of a strategy game may find it increasingly less of challenge, and seek ways of strengthening its appeal by introducing tighter constraints or more challenging opportunities. Weak players may find it appealing but altogether too much of a challenge, and seek ways of increasing its appeal by reducing its demands. And ordinary everyday players may introduce changes just for the sake of novelty, or to fill what is perceived as a gap - such as the literal gap represented by the Free Parking space in Monopoly. Indeed, the evolution of Monopoly from Lizzie Magie's original Landlord's Game furnishes an excellent example of how the inventor's original vision was virtually overturned by becoming a folk game and undergoing rapid evolution by collective modification. And ordinary players have not stopped modifying it ever since, as Spartaco Albertarelli documents in *1000 Ways of playing Monopoly*.

I'd like to think the main reason why I don't play games very successfully is that I'm too much of a technician. It's a good thing there are not too many technicians about, otherwise few games would ever get played properly. In order to keep myself in check I need to remind myself of the following cautionary observations by Steven Sniderman:

> Doing things as others have done them in the past allows us to feel connected to our ancestors, our culture, and our traditions. Players are supposed to be good sports [...], and rule challengers are perceived as poor sports or even spoilsports. [...] A set of rules that has been tested is better than one that has not, so if it [ain't broke] don't fix it.

**Conclusion**

That said, we can finish up with an expanded diagram that also includes explicit rules of behaviour ("Laws"), advisory rules (rules of strategy), and the role of feedback in continuing modification of the operational rules - thus:
References

3. Cardelliccio, Cosimo: *A discussion on the concept of evolution in games*, a paper read at Board Games Studies VI (Marburg, April 2003). (Return)